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Luke David Jagger

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Zilka-Kotab, PC

P.O. BOX 721120

SAN JOSE, CA 95172-1120

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte LUKE DAVID JAGGER, WILLIAM R. DENNIS,
and ANTON CHRISTIAN ROTHWELL

Appeal 2008-1584
Application 10/072,708
Technology Center 2100

Decided:¹ February 26, 2009

Before HOWARD B. BLANKENSHIP, ALLEN R. MACDONALD, and
THU A. DANG, *Administrative Patent Judges*.

BLANKENSHIP, *Administrative Patent Judge*.

DECISION ON APPEAL

¹ The two-month time period for filing an appeal or commencing a civil action, as recited in 37 C.F.R. § 1.304, begins to run from the decided date shown on this page of the decision. The time period does not run from the Mail Date (paper delivery) or Notification Date (electronic delivery).

STATEMENT OF THE CASE

This is an appeal under 35 U.S.C. § 134(a) from the Examiner's final rejection of claims 1-8 and 10-31, which are all the claims remaining in the application. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm, and enter new grounds of rejection in accordance with 37 C.F.R. § 41.50(b).

Invention

Appellants' invention relates to identifying and reporting spam e-mail messages. "Spam" refers to unsolicited bulk e-mail. (Spec. 1:1-10.) If a message is determined to be "spam," the message may be examined to identify a network address relating to the message and an authority hosting the address. A report is generated that contains the identified network address and the hosting authority. (*See Abstract.*)

Representative Claim

1. A method for generating a report on an unsolicited electronic message, comprising:
 - receiving an electronic mail message;
 - determining whether the electronic message is an unsolicited message;
 - if the message is an unsolicited message,
 - examining the message to identify a network address relating to the message,
 - identifying an authority hosting the network address, and

generating a report containing the identified network address
and hosting authority;

wherein identifying the hosting authority comprises identifying
an owner of a network domain.

Prior Art

The Examiner relies on the following references as evidence of
unpatentability.

Leeds	6,393,465 B2	May 21, 2002
Aronson	6,654,787 B1	Nov. 25, 2003

Examiner's Rejections

Claims 1-8 and 10-31 stand rejected under 35 U.S.C. § 103(a) as
being unpatentable over Aronson and Leeds.

ISSUES

(1) Are claims 1-8 and 10-31 patentable over the prior art under 35
U.S.C. § 103(a)?

(2) Are claims 1-8, 10-12, and 22-31 directed to patent eligible subject
matter under 35 U.S.C. § 101?

(3) Do claims 13-21 lack an enabling disclosure commensurate with
the claim scope, contrary to the requirement of 35 U.S.C. § 112, first
paragraph?

FINDINGS OF FACT -- PRIOR ART REJECTION

I. Claim Interpretation

1. The Specification indicates that the term “hosting authority” refers “to any organization responsible, either directly or indirectly, for hosting the spammer’s web site, domain, or e-mail account.” (Spec. 14:5-7.)

II. Aronson

1. Aronson describes method and apparatus for filtering e-mail. Figure 2 depicts a mail server 130 that includes an e-mail filter module 220. Filter module 220 applies a set of rules 210 for detecting spam. Spam is deposited in spam storage 230 while legitimate e-mail is sent to mailbox 140. Aronson col. 4, ll. 34-44.

2. The rules 210 for detecting spam may be developed by, for example, examining source header data from incoming e-mail. If the network address of a known spammer is contained in the source header, a rule is established to filter all incoming e-mail from that network address into spam storage 230. Aronson col. 4, ll. 45-64.

3. The rules 210 may also be based on keywords in the subject or body of spam e-mail. In addition, potential spam may be inspected by a human being and sent to spam storage 230. Aronson col. 5, ll. 2-8.

4. A further refined filter module may filter e-mail based on an inclusion list, or feature extraction and analysis (based on, for example phone numbers, URLs (Uniform Resource Locators), and addresses). These and other criteria may be used in combination for filtering spam. Aronson col. 5, ll. 50-67.

III. Leeds

1. Leeds describes a junk e-mail (spam) detector and eliminator that may use messaging services in an attempt to contact the purported sender of the spam. *See* Abstract.
2. The Leeds system analyzes the origins and transmission paths of a received e-mail message. The sender's origination information is extracted from the message and an automatic reply (verification request) is generated and sent. Based on the response to the automatic reply, the sender is scored with respect to characteristics relating to possible spam. Leeds col. 3, l. 54 to col. 4, l. 35.
3. Leeds Figure 2 shows an example in which a received e-mail header contains origination information that can be broken down into a user id (48941493) and the associated host name (notarealaddress.com). Both the origin address and the "Reply-To" address will receive a verification request. Leeds col. 4, l. 60 to col. 5, l. 7.
4. Further checks, in addition to the verification request, may be made to determine the likelihood that the received e-mail is valid. Additional checks may include using the UNIX "whois" command to determine if the associated host name exists, and the UNIX "traceroute" command to ensure there is a valid route back to the specified host. Leeds col. 5, ll. 8-30.

PRINCIPLES OF LAW -- PRIOR ART

A person having ordinary skill in the art uses known elements for their intended purpose. *Anderson's-Black Rock, Inc. v. Pavement Salvage Co.*, 396 U.S. 57 (1969) (radiant-heat burner used for its intended purpose in combination with a spreader and a tamper and screed).

In *KSR Int'l Co. v. Teleflex, Inc.*, 127 S. Ct. 1727, 1739 (2007), the Supreme Court reaffirmed the “functional approach” to the question of obviousness, noting that “[t]he combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results.” Based on its precedents, the Court explained:

When a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or a different one. If a person of ordinary skill can implement a predictable variation, §103 likely bars its patentability. For the same reason, if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill.

Id. at 1740. The operative question in this “functional approach” is thus “whether the improvement is more than the predictable use of prior art elements according to their established functions.” *Id.*

The references of record can indicate the level of skill in the art. *See In re GPAC, Inc.*, 57 F.3d 1573, 1579 (Fed. Cir. 1995) (USPTO board did not err in adopting the approach that the level of skill in the art was best determined by the references of record).

In evaluating a reference it is proper to take into account not only the specific teachings of the reference but also the inferences which one skilled in the art would reasonably be expected to draw therefrom. *In re Preda*, 401 F.2d 825, 826 (CCPA 1968).

The analysis under § 103 presumes not only common sense, but also skill in the art. *See In re Sovish*, 769 F.2d 738, 743 (Fed. Cir. 1985).

ANALYSIS -- PRIOR ART

Appellants' arguments in the Appeal Brief are sufficient for separate consideration of claim groups represented by claims 1 (representative also of claim 22, under separate heading but not separately argued), 2, 4, 5, 10 (representative also of claim 16, under separate heading but not separately argued), 11, 12, 19, 20, 21, 25, 26, 29, 30, and 31. *See* 37 C.F.R. § 41.37(c)(1)(vii).

Because each claim on appeal is either directed to non-statutory subject matter (35 U.S.C. § 101) or not enabled (35 U.S.C. § 112, first paragraph), we refer to the Examiner's findings in the Answer in support of the rejection for obviousness, in addition to the findings enumerated above. In view of the level of skill in the art as evidenced by the applied references, we are not persuaded that any of the claims have been rejected in error, and thus sustain the § 103(a) rejection of the claims. We enter new grounds of rejection against the claims, *infra*.

To the extent that the claims cover statutory and enabled embodiments, such improvements appear to be no more than the predictable

use of prior art elements according to their established functions, in view of the evidence provided by Aronson and Leeds.

Aronson teaches examining a message to determine if the message is spam e-mail by, in part, determining the network address of the e-mail originator (FF.II. 2). Appellants admit (Spec. 1:7-9; 12:10-11) that Internet Service Providers (ISPs) may be not pleased with those who use their services in the generation of spam. Leeds teaches a way to determine a hosting authority (e.g., an ISP) from information in an e-mail (FF.III. 4.)

All the recited data of claim 1, and the means to gather the recited data, are in the prior art, as is the claimed (though not in claim 1) transmitting of the information to a selected target. The question thus reduces to the obviousness of determining the entity to which information may be sent. Providing evidence of spam activity to an ISP so that the ISP can take action against the potential spammer, using prior art elements according to their established functions in a predictable manner, would seem to represent no more than an obvious approach to lessen the burden of received spam. Appellants have provided no evidence tending to show that the combination was “uniquely challenging or difficult for one of ordinary skill in the art.” *See Leapfrog Enters., Inc. v. Fisher-Price, Inc.*, 485 F.3d 1157, 1162 (Fed. Cir. 2007) (citing *KSR*, 127 S. Ct. at 1741). To the contrary, the evidence provided by Aronson and Leeds shows that statutory embodiments of claim 1 would not have been particularly difficult for one of ordinary skill in the art.

Although separately argued, at least claims 4, 5, 20, 21, 25, and 26 are similar in comparison of data to other data. We add to the Examiner’s

reasoning that the data manipulated in the claims does not change the underlying function or structure (even assuming there is one) of the claimed process, system, or product. As such, the data represents no more than nonfunctional descriptive material. The *content* of nonfunctional descriptive material is not entitled to weight in the patentability analysis. *Cf. In re Lowry*, 32 F.3d 1579, 1583 (Fed. Cir. 1994) (“Lowry does not claim merely the information content of a memory. . . . Nor does he seek to patent the content of information resident in a database.”). *See also Ex parte Nehls* (BPAI 2008), *available at* <http://www.uspto.gov/web/offices/dcom/bpai/prec/fd071823.pdf>; *Ex parte Curry*, 84 USPQ2d 1272 (BPAI 2005) (nonprecedential) (Fed. Cir. Appeal No. 2006-1003, *aff’d* Rule 36 Jun. 12, 2006); *Manual of Patent Examining Procedure* (MPEP) § 2106.01 (Eighth ed., Rev. 7, Jul. 2008).

Moreover, since data content of the claimed “report” (e.g., claims 1, 13, 22, and 31) does not change the underlying function or structure (even assuming there is one) of the claimed process, system, or product, Appellants’ arguments concerning the content of the “report” rely on recitations not entitled to weight in the patentability analysis.

NEW GROUNDS OF REJECTION

I. Claims 1-8, 10-12, 27-31 -- 35 U.S.C. § 101 Non-statutory Subject Matter

“Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and

requirements of this title.” 35 U.S.C. § 101. “[N]o patent is available for a discovery, however useful, novel, and nonobvious, unless it falls within one of the express categories of patentable subject matter of 35 U.S.C. § 101.” *Kewanee Oil Co. v. Bicron Corp.*, 416 U.S. 470, 483 (1974).

Claims 1-12 and 27-31 are drafted in the form of a process. We take base claim 1 as representative of these claims. Claim 1, if directed to statutory subject matter, falls within the statutory class of “process.”

“A process is . . . an act, or a series of acts, performed upon the subject-matter to be transformed and reduced to a different state or thing.” *Cochrane v. Deener*, 94 U.S. 780, 788 (1877). “Transformation and reduction of an article “to a different state or thing” is the clue to the patentability of a process claim that does not include particular machines.” *Diamond v. Diehr*, 450 U.S. 175, 184 (1981) (quoting *Gottschalk v. Benson*, 409 U.S. 63, 70 (1972)).

Our reviewing court recently held that the “useful, concrete and tangible result” inquiry, first set forth in *In re Alappat*, 33 F.3d 1526, 1544 (Fed. Cir. 1994) (en banc), is inadequate to determine whether a claim is patent-eligible under § 101. *See In re Bilski*, 545 F.3d 943, 959-60 (Fed. Cir. 2008) (en banc). The Supreme Court’s “machine-or-transformation test, properly applied, is the governing test for determining patent eligibility of a process under § 101.” *Id.* at 956. “A claimed process is surely patent-eligible under § 101 if: (1) it is tied to a particular machine or apparatus, or (2) it transforms a particular article into a different state or thing.” *Id.* at 954.

Claim 1 fails the first branch of the “machine-or-transformation test.” The claim does not recite, or require, that the steps of “receiving,” “determining,” “examining,” “identifying,” and “generating” be performed on, or by, a particular machine or apparatus. The claim does not require that the steps be performed on *any* machine or apparatus. As evidenced by Aronson (FF.II. 3, *supra*), human beings are capable of receiving and processing electronic mail messages within the requirements of claim 1.

We acknowledge that claim 1 is broad enough to cover machine implementation of the steps recited. However, that the claim might read on statutory embodiments does not mean that the claim passes muster under § 101. “The four categories [of § 101] together describe the exclusive reach of patentable subject matter. If a claim covers material not found in any of the four statutory categories, that claim falls outside the plainly expressed scope of § 101 even if the subject matter is otherwise new and useful.” *In re Nuijten*, 500 F.3d 1346, 1354 (Fed. Cir. 2007), *cert. denied*, __ U.S __, 129 S. Ct. 70 (2008).²

Claim 1 also fails the second branch of the “machine-or-transformation” test. The claim does not contain or require an article that is transformed and reduced “to a different state or thing.” *See Diehr*, 450 U.S. at 184.

In *Bilski*, our reviewing court identified a circumstance in which *electronic transformation of data into a particular visual depiction of a physical object on a display* may be considered a transformation sufficient to

² We need not, and do not, reach the question of whether limiting claim 1 to the steps being performed on a computer would be sufficient to meet either branch of the “machine-or-transformation” test.

render a claimed process patent-eligible. *See Bilski*, 545 F.3d at 962-63 (discussing *In re Abele*, 684 F.2d 902, 908-09 (CCPA 1982)). However, as we have indicated, instant claim 1 does not require any kind of electronic transformation of data into a different state or thing. “Of course, a claimed process wherein all of the process steps may be performed entirely in the human mind is obviously not tied to any machine and does not transform any article into a different state or thing. As a result, it would not be patent-eligible under § 101.” *Bilski*, 545 F.3d at 961 n.26.

We thus reject claims 1-8, 10-12, and 27-31 under 35 U.S.C. § 101 as being directed to non-statutory subject matter.

II. Claims 13-21 -- 35 U.S.C. § 112, First Paragraph Scope of Enablement

A claim is unpatentable under 35 U.S.C. § 112, first paragraph, if a claim element is set forth in purely functional language that does not invoke the restricted construction under 35 U.S.C. § 112, sixth paragraph, for elements expressed as a means or step plus function limitation. *Ex parte Miyazaki*, 89 USPQ2d 1207, 1217 (BPAI 2008) (precedential); *see also Sanada v. Reynolds*, 67 USPQ2d 1459, 1462 (BPAI 2003).

Base claim 13 sets forth a “system” comprising a detector, a host identifier, a report generator, and a storage medium, each “operable to” perform an associated function. The elements are expressed in purely functional language and are not recited in language that would invoke the application of 35 U.S.C. § 112, sixth paragraph. Moreover, the Specification

does not provide any particular limiting structural meaning for any of the elements that comprise the “system.”

Accordingly, we reject claims 13-21 under U.S.C. § 112, first paragraph, for lack of an enabling disclosure commensurate with the claim scope, because elements of at least base claim 13 are claimed in purely functional language and do not invoke the application of 35 U.S.C. § 112, sixth paragraph.

III. Claims 22-26 -- 35 U.S.C. § 101 Non-statutory Subject Matter

“A transitory, propagating signal . . . is not a ‘process, machine, manufacture, or composition of matter.’ Those four categories define the explicit scope and reach of subject matter patentable under 35 U.S.C. § 101.” *In re Nuijten*, 500 F.3d at 1357.

Claim 22 and dependent claims 23 through 26 are directed to a computer “product” that comprises “code.” “Code” is a non-specific term that can refer to a program listing or to software *per se*, rather than limited to executable “code” that, when loaded into a computer memory and executed by the computer, might impart a particular functionality to the machine.

In any event, the claims are embodied in, as recited in claim 22, “a computer readable medium that stores said computer codes [sic]” The claims are not limited to statutory subject matter, as made plain in dependent claim 23, which specifies that the “computer readable medium” may be “a data signal embodied in a carrier wave.” The Specification, at least at page 16, lines 3 through 5, also indicates that a computer readable storage medium may be a data signal embodied in a carrier wave.

“If a claim covers material not found in any of the four statutory categories, that claim falls outside the plainly expressed scope of § 101 even if the subject matter is otherwise new and useful.” *In re Nuijten*, 500 F.3d at 1354.

We therefore reject claims 22-26 under 35 U.S.C. § 101 as being directed to non-statutory subject matter.

CONCLUSIONS OF LAW

(1) Claims 1-8 and 10-31 are not patentable over the prior art under 35 U.S.C. § 103(a).

(2) Claims 1-8, 10-12, and 22-31 are not directed to patent eligible subject matter under 35 U.S.C. § 101.

(3) Claims 13-21 lack an enabling disclosure commensurate with the claim scope, contrary to the requirement of 35 U.S.C. § 112, first paragraph.

DECISION

The Examiner’s rejection of claims 1-8 and 10-31 under 35 U.S.C. § 103(a) as being unpatentable over Aronson and Leeds is affirmed.

In new grounds of rejection, we have rejected claims 1-8, 10-12, and 22-31 under 35 U.S.C. § 101 as being directed to non-statutory subject matter, and claims 13-21 under 35 U.S.C. § 112, first paragraph, for lack of an enabling disclosure commensurate with claim scope.

With respect to the affirmed rejection(s), 37 C.F.R. § 41.52(a)(1) provides that “Appellant may file a single request for rehearing within two months from the date of the original decision of the Board.”

In addition to affirming the Examiner's rejection(s) of one or more claims, this decision contains a new ground of rejection pursuant to 37 C.F.R. § 41.50(b). 37 C.F.R. § 41.50(b) provides that "[a] new ground of rejection pursuant to this paragraph shall not be considered final for judicial review."

37 C.F.R. § 41.50(b) also provides that Appellants, WITHIN TWO MONTHS FROM THE DATE OF THE DECISION, must exercise one of the following two options with respect to the new ground of rejection to avoid termination of the appeal as to the rejected claims:

(1) *Reopen prosecution.* Submit an appropriate amendment of the claims so rejected or new evidence relating to the claims so rejected, or both, and have the matter reconsidered by the examiner, in which event the proceeding will be remanded to the examiner. . . .

(2) *Request rehearing.* Request that the proceeding be reheard under § 41.52 by the Board upon the same record. . . .

Should Appellants elect to prosecute further before the Examiner pursuant to 37 C.F.R. § 41.50(b)(1), in order to preserve the right to seek review under 35 U.S.C. §§ 141 or 145 with respect to the affirmed rejection, the effective date of the affirmance is deferred until conclusion of the prosecution before the Examiner unless, as a mere incident to the limited prosecution, the affirmed rejection is overcome.

If Appellants elect prosecution before the Examiner and this does not result in allowance of the application, abandonment or a second appeal, this case should be returned to the Board of Patent Appeals and Interferences for

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final action on the affirmed rejection, including any timely request for rehearing thereof.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a).

AFFIRMED -- 37 C.F.R. § 41.50(b)

msc

ZILKA-KOTAB, PC
P.O. BOX 721120
SAN JOSE CA 95172-1120